

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

Work Order ID 139322

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Page 2

Item ID: D022-661-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: R22 Bearpaw Wearplates

Start Date: 11/23/2015 Start Qty: 2.00

2

Cust Item ID:

Required Date: 11/25/2015 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00				2x	DAS 28 9-89		NOV 24 2015
Packaging	Identify and pack for shipping as per PPP D022-661-041/ DSI9717-041 Location: <u>1x sold</u> <u>1x FG / 28</u>								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00				2	MLJ		15-11-24
Quality Control									

20151124

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐			

Picklist Print

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Page 1

Work Order ID: 139322

139322

Parent Item: D022-661-041

D022-661-041

Parent Item Name: R22 Bearpaw Wearplates

Start Date: 11/23/2015

Required Date: 11/25/2015

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A 15.02.24 NEW ISSUE DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN4-14A		Purchased	No				Each	251.0000	4	8			
AN4-14A Bolt													

Location	Loc Qty	Loc Code
FG	5	
122141	5	
ST325A	150	
M133316	150	
ST344	96	
M129384	8	
M133284	88	

NOV 24 2015
DAS 26 9-89

D5222-041		Manufactured	No				Each	4.0000	2	4			
D5222-041 Wearplate Assembly													

Location	Loc Qty	Loc Code
ST188	4	
135048	4	

NOV 24 2015
DAS 26 9-89

DAS
28
9-89

DAS
26
9-89

Picklist Print

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Page 2

Work Order ID: 139322

Parent Item: D022-661-041

Parent Item Name: R22 Bearpaw Wearplates

139322

D022-661-041

Start Date: 11/23/2015

Required Date: 11/25/2015

Start Qty: 2.00

Required Qty: 2.00

MS21042L4

Purchased

No

Each

1,622.000

4 8

MS21042L 4

Locknut

**DAS
28
9.88**

**DAS
28
9.88**

Location

Loc Qty

Loc Code

FP001

2

m124231

2

GA

57

m127813

57

ST260a

138

m130799

56

m131803

6

m132262

76

ST303

1256

m133363

1256

ST305

169

m128300

8

m130388

7

m130922

97

m132123

56

m133316

1

**DAS
28
9.88**

Picklist Print

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Page 3

Work Order ID: 139322

139322

Parent Item: D022-661-041

D022-661-041

Parent Item Name: R22 Bearpaw Wearplates

Start Date: 11/23/2015

Required Date: 11/25/2015

Start Qty: 2.00

Required Qty: 2.00

NAS1149D0463J

Purchased

No

Each

4,264.000

4 8

NAS1149D0463.J

WASHER

NOV 24 2015

Location

Loc Qty

Loc Code

GA	432	
M129390	41	
M132035	391	
ST260a	1500	
M133316	1500	
ST263	890	
M133284	890	8
ST269	1442	
M129682	47	
M130799	371	
M132317	101	
M132677	888	
M133077	35	

DAS
28
9-89

DAS
6
9-89

DAS
26
9-89

DART SERVICE INSTRUCTION
TO AMEND INSTALLATION INSTRUCTIONS IIN-D022-661 REV. B AND
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D022-661 REV. 0
OR LATER APPROVED REVISION
REF. TCCA STC: SH02-9
REF. FAA STC: SR01493NY

1.0 Purpose

The purpose of this Dart Service Instruction (DSI) is to provide instructions to install the D022-661-041 Wearplate Kit as part of the D022-661-011 Bearpaw Kit in order to provide additional protection for the bearpaw and better grip on slippery surfaces.

2.0 Installation

- 2.1. Lift the skidtube per the Aircraft Maintenance Manual. Ensure the skid tubes are serviceable. Remove the forward set of bolts on the D022-661-011 Bearpaws per ICA-D022-661 and retain hardware. Bearpaws may be removed at customer's option.
- 2.2. Locate a D5222-041 Wearplate on the bottom side of each D3076-1 Bearpaw per Figure 1.
- 2.3. Ensure the D3076-1 Bearpaw and D5222-041 Wearplate are positioned on the aft end of each skidtube as shown in Figure 2.
- 2.4. Lower the aircraft so the aircraft is resting on the bearpaws.
- 2.5. Attach the D2870 Clamp with the hardware shown in Figure 3
CAUTION: The torque on the nuts should be limited to 20 in-lb (2.3 Nm).

NOTE: Additional NAS1149D0463J washers may be installed under the nuts to ensure 1.5-4 threads in safety on the bolts. Although not generally necessary, it is acceptable to replace the AN4 bolts with longer or shorter AN4 bolts if required.

- 2.6. Update aircraft log book to indicate installation of D022-661-041 Wearplate kit and adjust weight and balance record of the aircraft with the weight and balance data provided in Section 3 of this DSI.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 15.02.04
CERT. NO.: SH02-9
ISSUE NO.: 1

20151123

SH 139322

A	NEW ISSUE	VS	15.02.04
REV.	DESCRIPTION	BY	DATE
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9717	SHEET 1 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.		WEARPLATE INSTALLATION	NTS
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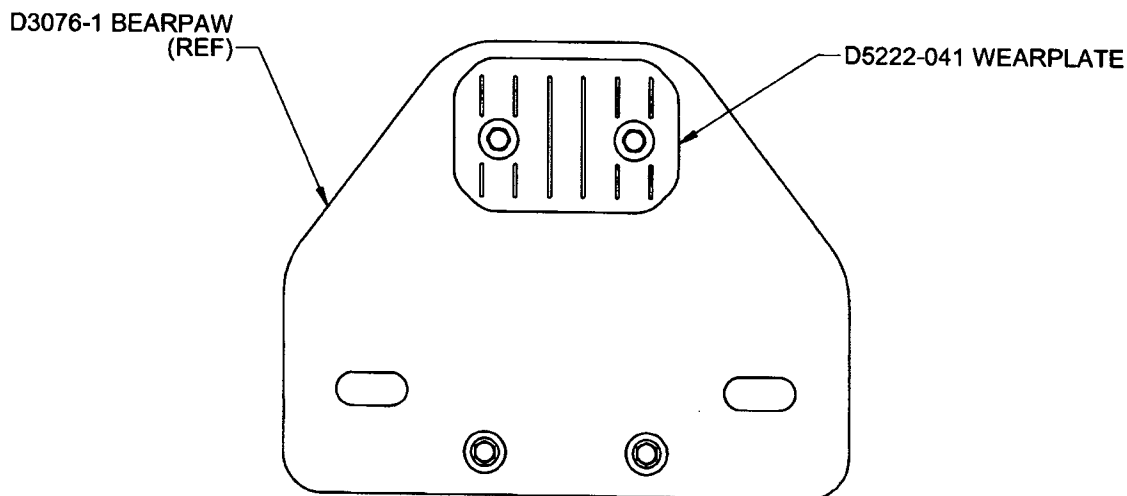


Figure 1 - Installation of D5222-041 Wearplate on D3076-1 Bearpaw
(View from under bearpaw)

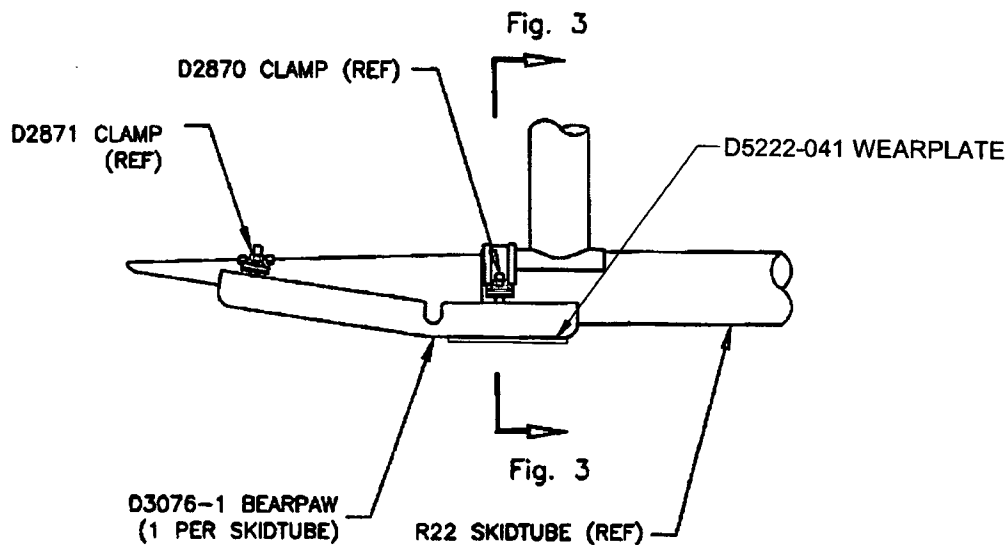


Figure 2 - Bearpaw Location
(Side View)

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BRANCH
DAO # 01-O-01

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BY: *[Signature]*
D. SHEPHERD (DE # 02)

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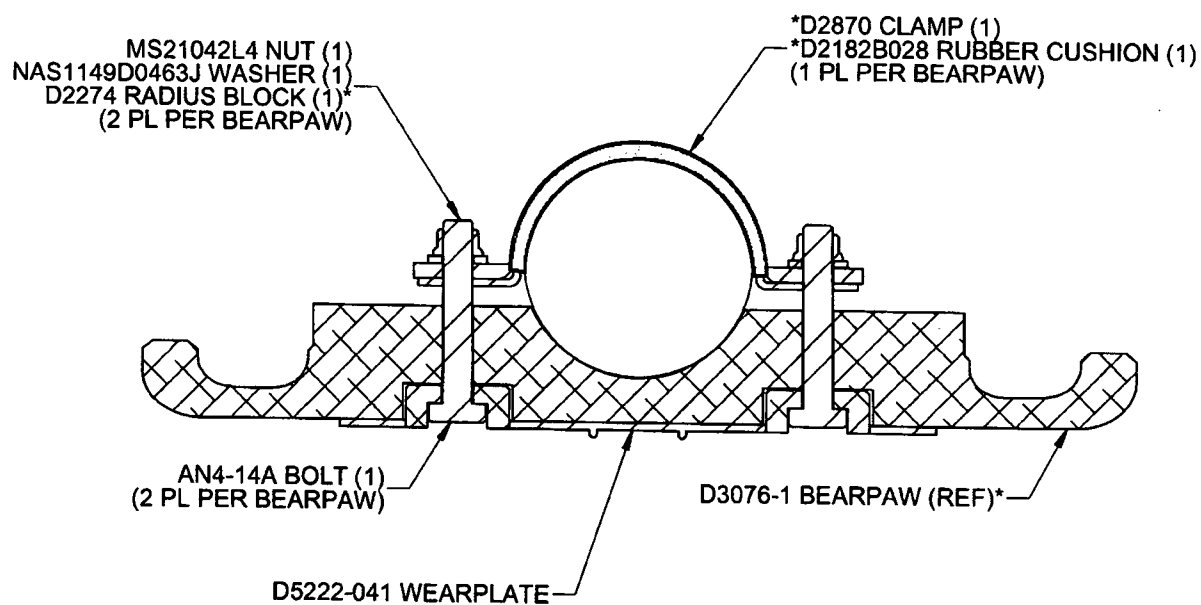


Figure 3 - Bearpaw Installation
(Forward Clamp)

*Included in D022-661-011

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3.0 Weight and Balance

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D022-661-041 Wearplate kit	0.84 lb 0.38 kg	0.0 in 0.0 m	0.0 lb-kg 0.0 m-kg	118.3 in 3.00 m	99.4 in-lb 1.14 m-kg

4.0 Parts List

QTY -041	Part Number	Description
X	D022-661-041	WEARPLATE KIT
2	D5222-041	WEARPLATE
4	AN4-14A	BOLT
4	MS21042L4	NUT
4	NAS1149D0436J	WASHER

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BRANCH
DAO # 01-O-01

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Ref. only

3.0 Weight and Balance

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D022-661-041 Wearplate kit	0.84 lb 0.38 kg	0.0 in 0.0 m	0.0 lb-kg 0.0 m-kg	118.3 in 3.00 m	99.4 in-lb 1.14 m-kg

4.0 Parts List

QTY -041	Part Number	Description
X	D022-661-041	WEARPLATE KIT
2	D5222-041	WEARPLATE
4	AN4-14A	BOLT
4	MS21042L4	NUT
4	NAS1149D0436J	WASHER

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BRANCH
DAO # 01-O-01

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